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November 6, 1998

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Mr. Michael McAteer, WAM (5HSRL-6J)
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Subject: Monthly Progress Report No. 9
CH2M HILL/E&E Oversight of Remedial Action Activities
Enviro-Chem (ECC) Superfund Site, Zionsville, Indiana
WA No. 008-RXBF-0530, Contract No. 68-W6-0025

Dear Mr. McAteer:

Enclosed is a copy of Progress Report No. 9 for the September and October 1998 reporting periods and the corresponding photographic log. The two months were combined into one report because minimal field activities occurred in September.

Please call me at (513) 762-7605 if you have any questions.

Sincerely,

CH2M HILL

Timothy D. Harrison, P.E.
Site Manager

CIN\PRO9
Enclosures
c: Stephen Nathan/PO/USEPA; 5HSM-5J (w/o enclosure)
Peggy Hendrixson/CO/USEPA; 5MCC-10J (w/o enclosure)
Ike Johnson/PM/MKE
Al Erickson/RTL/MKE
Dan Lynch/Environment & Ecology
Gail Gill/AA/MKE

ECC RA Oversight Progress Report No. 9 (September and October 1998)

CH2M HILL Remedial Action (RA) Oversight Observation

This is the ninth RA oversight progress report submitted by CH2M HILL for RA activities at the Enviro-Chem (ECC) Superfund Site in Zionsville, Indiana. This progress report covers the period from September 1 through October 31, 1998. An individual report was not submitted for September because minimal field activities occurred.

Versar Inc., the ECC Trust's (Trust) prime remediation contractor, and several of their subcontractors performed field activities during the reporting period. Full-time oversight was provided at the ECC site during this reporting period when significant activities were in progress at the request of U.S. EPA. Dan Lynch/Ecology & Environment, Inc. (CH2M HILL subcontractor) provided oversight from September 29 through October 7 and October 14 through October 31

No oversight was performed between September 1 and September 29 because significant site work ceased during the Trust's redesign of the RCRA cap. No oversight was performed between October 7 and October 14 because significant site activities ceased due to contractor discussing placement methods for the RCRA cap bridge lift.

Progress Made by Trust's Contractor This Reporting Period

The line items below list the status of a particular remediation task identified in the Trust's Revised Project Schedule dated June 1, 1998. Line items not listed were completed prior to this reporting period and are discussed in previous progress reports.

43. Construct Perimeter Roads—This item is in progress, but behind schedule. Roads have been "roughed in" but are not final based on specifications. This is not a critical path issue and has been delayed while the Trust address critical path issues.

44. Clean and Repair Erosion Ditches—The ditch south of the site access gate was delayed due to a water seep of unknown origin being contained in this area. Water was held in the ditch by an earthen berm that was temporarily installed. The Trust sampled the water collected in the ditch and the analytical results indicated that the seep was not contaminated. The water was released by the Trust into Unnamed ditch. The southern ditch was prepared for revetment during this reporting period and installed is expected to be completed next period.

45. Install Culvert System—This item was completed during this reporting period.

63. Process System Wire— The wiring of the process building and the storage tank controls continued during this reporting period. Wiring of the SVE system process equipment is expected to continue into the next reporting period.

64. SVE System Testing— This item was scheduled for completion prior to this

reporting period. The SVE system is in place and some functional testing has been done. Functional testing is expected to continue until the RCRA cap is in place and the SVE system is fully operational.

65. SVE Startup and Shakedown (native soil)— This item was continued during this reporting period and is expected to continue until the RCRA cap installation is completed.

66. SVE Treatment Complete System— System is complete except for some control instrumentation and programmable logic controller (PLC) programming. Installation of the system is expected to continue during the next reporting period. The SVE must be fully operational and running by December 2, 1998 to meet the requirements of Schedule Z of Exhibit A of the Consent Decree.

67. WWT System Testing—This item was completed prior to this reporting period. The mobile WWTP was removed from the site during the reporting period. The stationary system was operated on an as needed basis to treat wastewater generated by the SVE system and other site water sources. Wastewater storage tanks #1 and #3 were disassembled and removed from site during this reporting period.

70. Pumping and Treating of Ponded Water— This activity was initiated prior to this reporting period, continued during this period, and is expected to continue into the next period as necessary.

71. Wastewater Storage and Treatment System Complete— The system is near completion. Some minor instrumentation and control functions must still be programmed into the PLC.

73. **North Treatment Area Phase 1 (Existing Soils)**— Activities continue as described in item 78A below.

78A. Install Keyway Berm — This item was completed prior to this reporting period. The anchor trench for the HDPE liner was excavated in the center of the keyway per the cap redesign specifications.

85. Air Monitoring — Only the Health and Safety Officer for safety plan conformance conducted air monitoring during this period. The continuous sampling was stopped upon the completion of the south pad excavation. The northern and central portions of the site are now covered with at least 6 inches of clean cover material and no air monitoring is being conducted.

87. **South Concrete Pad Area**— Work is discussed in item 89 below.

89. Install Well Points to Dewater Area— This activity was completed prior to this reporting period. Two of the six original well points were left in place to provide water for future grass watering activities during site restoration. The other four well points were abandoned.

112 - 117. Southern Pad Excavation— Backfilling of the southern concrete pad area was completed during this reporting period except for topsoil. The southern pad area is being used to stockpile select cover material for the HDPE liner being installed in the north and central portions of the site.

118. Install liner on North Wall— This item was completed prior to this reporting period. The northern portion of the liner, which had been buried under about two feet of soil, was exposed to allow for the attachment of the RCRA cap HDPE liner to the existing wall liner.

121. South concrete Pad Area Complete —Area was backfilled and some grading was completed. Topsoil has not been placed. The drainage ditches have not been constructed. The area is being used to stockpile select cover material for the RCRA cap.

126. Complete Stage 1 Landfill Cover — The RCRA cap design was revised to use a 60 millimeter HDPE membrane and geosynthetic drainage net with 18 inches of select cover and 6 inches of topsoil above it instead of a low permeability clay cap. A bridge lift of a minimum of 3-inches of select fill was required between the contaminated fill material and the HDPE liner. The bridge lift was completed during this reporting period. The final surface preparation of the bridge lift is expected to be completed during the next reporting period. The placement of the HDPE membrane, drainage net and soil cover is expected to be completed during the next reporting period.

All other schedule line items are to be initiated after this reporting period.

Problems Resolved by the ECC Trust's Contractor

None.

Problem Areas Remaining

1. During geotechnical drilling of the southern concrete pad area, the Trust discovered on area of high VOCs (based on PID readings of the soil using an OVM) that they did not anticipate. This area was not intended to be remediated by the Trust under the current remedial design. Five borings were completed to further investigate the area. Three of the borings showed no obvious contamination (based on PID headspace readings performed by Trust). The remaining two borings showed indications of contamination and sampling/treatment wells ("hot spot" wells) were installed.

   Prior to this reporting period the test results from the two contaminated wells showed that the levels had significantly increased after initial contaminant reduction indicating that a larger, hydraulically connected contaminant source may be present. The Trust proposed to complete the south pad excavation in an attempt to removed any potential source(s) connected to the "hot spot" areas and then retreat with Fenton's reagent. No action has been taken during this reporting period.

2. During the excavation of the southern concrete pad, a sand seam containing water and free product was found in the southeast corner of the excavation. The seam is located at about fourteen feet below ground surface and appears to extend southward. The Trust extended the lateral excavation about 8 feet south of the remedial boundary in the area of the sand seam to see if it would "pinch out". The seam did not diminish but the excavation was halted by the Trust's engineer because of the close proximity of the fractionation tanks and the concern for sidewall stability of the excavation. This new "hot spot" is expected be addressed after further evaluations by the Trust in conjunction

with issue number 1 described above. An extraction/injection well was installed in this hotspot during this reporting period. A pump test, water sampling, and treatment with Fenton's reagent are expected to be performed by the Trust contractors during the next reporting period.

3. A seep was noted from the east wall of the west drainage ditch in the area south of the site access gate. The seep appeared to enter the ditch be about one foot above the invert of the ditch and was flowing at about 1 gallon per minute. The origin of the water is unknown. A representative of the Trust (Handex) collected a sample of the water. Analytical data indicated that the water from the seep was not contaminated. The water that had been contained in the ditch by a temporary earthen berm was released to Unnamed ditch. It is expected that revetment will be installed in the ditch in accordance with the specifications.

4. The contractor constructed two test pads for the Stage I cap on the northern SVE treatment area were the excavated southern pad soils were placed. Testing of the pads found that the contractor was not able to achieve the compaction and permeability required by the project design specifications. This was likely due to the wet and poorly compacted sub-base material beneath the test pads. The Trust ceased cover installation. The Trust redesigned a major component of the RCRA cap, with approval from U.S. EPA, to a 60-mil HDPE liner rather than three feet of compacted clay. The design delay resulted in the loss of some favorable construction weather. Since resumption of site work the weather has been wet sub-base material has been difficult to manage. This is a critical path item and any further delay could impact the Schedule Z requirement. The Stage I cover is required to be installed by December 2, 1998 to meet the milestone in Schedule Z.

Trust's Activities Planned

The following activities are expected to begin, or be completed, during the next reporting period based on Versar's current project schedule. The line items below list the status of specific remediation line items identified in the Trust's Revised Project Schedule dated June 1, 1998.

43. Construct Perimeter Roads— Complete construction of the interior site access road.

44. Clean and Repair Erosion Ditches—Complete construction of site erosion ditches per the specifications.

62-64. Process Building Equipment—Continue wiring SVE process equipment and ancillary plumbing. Functional testing of some equipment is also expected.

126. Complete Stage 1 Landfill Cover—Complete the phase 1 cover.

127. Commence SVE Operations — After completion of the stage 1 cover, start continuous operation of the SVE system.

129. Sampling of surface water and onsite and offsite verification monitoring wells by Trustees.

Other line items shown on the contractor schedule are expected to take place after the next reporting period and are therefore not included in this report.

ECC Trust's Schedule Status

Based on the Trust's revised project schedule dated June 1, 1998, it appears that progress is about 15 weeks behind schedule at the end of this reporting period.